UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

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NOTICE OF ALLOWANCE AND FEE(S) DUE

21302 7590 1223/2008 KNOBLE, YOSHIDA & DUNLEAVY EIGHT PENN CENTER SUITTE 1350, 1628 IOHN F KENNEDY BLVD

PHILADELPHIA PA 19103

EXAMINER

TORRES RUIZ, JOHALI ALEJANDRA

ART UNIT PAPER NUMBER

2838

DATE MAILED: 12/23/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.		
10/552,674	04/24/2006	Noriyasu Iwane	KAWA-1003US	2289		
TITLE OF INVENTION: CHARGING RATE ESTIMATING METHOD, CHARGING RATE ESTIMATING UNIT AND BATTERY SYSTEM						

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/23/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION NOT THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE DEE and DURI ICATION DEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless correcte maintenance fee notifical	correspondence includir ed below or directed oth tions	ng the Patent, advance on nerwise in Block 1, by (rders and notification of a) specifying a new corre	maintenance fees v spondence address	vill be ; and/o	mailed to the current r (b) indicating a sepa	correspondence a trate "FEE ADDR	ddress as ESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
EIGHT PENN C SUITE 1350, 16	28 JOHN F KENNI	EAVY		Ces	tificat	e of Mailing or Trans (s) Transmittal is being fficient postage for fir ISSUE FEE address 71) 273-2885, on the d	mission g deposited with the st class mail in an above, or being ate indicated belov	ne United envelope facsimile w.
PHILADELPHI.	A, PA 19103						(Deposi	itor's name)
			_					(Signature)
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APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.		CONFIRMATION	N NO.	
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nonprovisional	NO	\$1510	\$300	\$0		\$1810	03/23/20	09
EXAM		ART UNIT	CLASS-SUBCLASS					
TORRES RUIZ, JOH		2838	320-I32000 2. For printing on the					
I. Change of correspondence address or indication of "Fee Address" (37 CFR 1.85). Change of correspondence address for Change of Correspondence Address from PIOSB/12) and Lanched. The Address from PIOSB/12) and Lanched. The Address' indication for "Fee Address" Indication form PIOSB/147 and P			(f) the names of up to 3 registered patent attorneys 1. cragents OR, alternatively. (2) the name of a single firm thaving as a member a registered nature, or or agent and the names of up to 2 registered patent antenneys or agents. If no name is a member as name will be primed.					
PLEASE NOTE: Uni recordation as set forti (A) NAME OF ASSIG	less an assignee is ident h in 37 CFR 3.11. Comp GNEE	ified below, no assignee pletion of this form is NC	data will appear on the J IT a substitute for filing an (B) RESIDENCE: (CIT	atent. If an assign assignment. Y and STATE OR 0	COUN	IRY)		
4a. The following fee(s): Issue Fee Publication Fee (N	o small entity discount p		b. Payment of Fee(s): (Ple A check is enclosed. Payment by credit ca The Director is hereb overpayment, to Dep	rd. Form PTO-203	is att	ached. required fee(s), any de		any s form).
	s SMALL ENTITY state	is. See 37 CFR 1.27.	☐ b. Applicant is no los					
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte tes Patent and Trademarl	ed from anyone other than k Office.	the applicant; a reg	istered	attorney or agent; or the	ne assignee or othe	r party in
Authorized Signature				Date				
Typed or printed name				Registration !				
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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



UNITED STATES PATENT AND TRADEMARK OFFICE

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EIGHT PENN CENTER				ART UNIT	PAPER NUMBER	
SUITE 1350, 1628 JOHN F KENNEDY BLVD PHILADELPHIA, PA 19103			2838	in .		

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 353 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 353 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)	
10/552,674	IWANE ET AL.	
Examiner	Art Unit	
JOHALLA, TORRES RUIZ	2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- This communication is responsive to 9/9/2008.
- The allowed claim(s) is/are 1-16.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) X All b) ☐ Some* c) ☐ None of the:
 - 1. T Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. __
 - 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6.

DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. Notice of References Cited (PTO-892)
- Notice of Draftperson's Patent Drawing Review (PTO-946).
- 4. T Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 3. Information Disclosure Statements (PTO/SB/08), Pacer No./Mail Date
- Paper No./Mail Date T Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- □ Other .

/Akm Enavet Ullah/

Supervisory Patent Examiner, Art Unit 2838

5. Notice of Informal Patent Application 6 Interview Summery (PTO-413).

Application/Control Number: 10/552,674 Page 2

Art Unit: 2838

DETAILED ACTION

Allowable Subject Matter

- 1. Claim 17 has been cancelled by applicant.
- Claims 1-16 are allowed.

Reasons for allowance

- 3. The following is a statement for the indication of allowable subject matter:
- 4. The closest prior art documents Finger (U.S. Patent Number 4,460,870), Kinoshita et al. (JP 407098367) and Satake (U.S. Publication Number 2002/0113594) fail to teach alone or in combination, providing a time unction for the open circuit voltage of a secondary battery as a function of time with its coefficients undetermined, wherein the step of providing the time function comprises providing a combination of at least two exponential decay functions and using a plural measured voltage samples to determine the multi-exponential decay function.
- 5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

 Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHALI A. TORRES RUIZ whose telephone number is (571)270-1262. The examiner can normally be reached on M- Alternating F 7:30am-5om EST. Art Unit: 2838

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on (571) 272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Akm Enayet Ullah/ Supervisory Patent Examiner, Art Unit 2838

/Johali A Torres Ruiz/ Examiner, Art Unit 2838 JAT